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RESEARCH IN HOME ECONOMICS

at the

LAND-GRANT INSTITUTIONS

1937-1938

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## EXPLANATORY NOTE

This compilation of information on the present status of research in Home Economics at Land-Grant Institutions attempts to cover research in progress as of November 1, 1937, and publications from November 1, 1936, to November 1, 1937. The lists are limited for the most part to research conducted in home economics departments. Although it is recognized that research of value to one or another of the various subject matter divisions of home economics is being conducted in other departments of the Land-Grant Institutions, space limitations prevent the inclusion of such research except as it is of cooperative nature with home economics, or is being conducted especially for home economics in institutions where there is little or no research in the home economics department.

In section I research in progress is indicated by project title, date of approval by the Office of Experiment Stations, U.S.D.A. if the project is supported in part or as a whole by Federal funds, names of project leaders and research workers, and sources of financial support. The terms Purnell, Adams, Hatch, and Bankhead-Jones refer to Federal funds provided for research at the State agricultural experiment stations under these Congressional Acts. Brackets are used to indicate the departments other than Home Economics either cooperating in the research, in which case only the names of the cooperating research workers and departments are bracketed, or entirely responsible for the research, in which case the project titles are also included within the brackets.

In section II, covering the publications of the year, precedence is given to State agricultural experiment station publications. Many of these are available on request from the station in question. References to journal articles are given in the form used in the Experiment Station Record, which publishes abstracts of most of the publications listed.

## ALABAMA

### I.

[Studies of the vitamin B complex, 6/16/27, W. D. Salmon and G. A. Schrader, Animal Husbandry] (Purnell).

[Pathological conditions associated with a lack of the vitamin B complex, 6/16/27, W. D. Salmon and C. O. Prickett, Animal Husbandry] (Adams).

[A study of quality in cowpeas and soybeans for human food, 12/6/35, W. D. Salmon and W. C. Sherman (Bankhead-Jones)].

### II.

Alleviation of vitamin B deficiency in the rat by certain natural fats and synthetic esters, W. D. Salmon and J. G. Goodman. Jour. Nutr. 13 (1937), pp. 477-500.

Symptomatology and pathology of potassium and magnesium deficiencies in the rat, G. A. Schrader, C. O. Prickett and W. D. Salmon. Jour. Nutr. 14 (1937), pp. 85-109.

## ARIZONA

### I.

The relation of nutrition to "mottled enamel" endemic in certain Arizona communities, 7/10/31, M. C. Smith (Purnell).

The availability for hemoglobin formation of iron and copper in certain dried fruits and the effect of the sulfuring process thereupon, 10/28/35, M. C. Smith, L. Otis, H. Spector, and C. Ridder (Purnell).

The vitamin content of certain foodstuffs, including the effect of cooking and comparison of chemical and biological methods of assay, 10/28/35, M. C. Smith, L. Otis, and H. Spector (Purnell).

### II.

Progress report in Arizona Sta. Rpt. 1936, pp. 63-68.

The effect of storage upon the vitamin A content of alfalfa hay, M. C. Smith. Jour. Agr. Res. [U. S.], 53 (1936), pp. 681-684.

Hemoglobin regeneration in anemic rats in relation to iron intake, M. C. Smith and L. Otis. Jour. Nutr., 13 (1937), pp. 573-582.

Sex variations in the utilization of iron by anemic rats, M. C. Smith and L. Otis. Science, 85 (1937), pp. 125, 126.

The biological value of the proteins of Hegari and the supplemental value of certain protein concentrates, M. C. Smith and L. Otis. Jour. Agr. Res. [U. S.], 54 (1937), pp. 135-146.

The effect of copper in the preparation of anemic rats upon their subsequent response to iron, M. C. Smith and L. Otis. Jour. Nutr. 14 (1937), pp. 365-372.

Metabolic studies of human subjects on a skimmed milk and banana diet, R. Sainsbury and M. S. Smith. Jour. Home Econ. 29 (1937), pp. 468-471.



## ARKANSAS

### I.

A study of the factors which affect the quality of canned tomatoes, 5/1/34, H. Reynolds (Purnell).

The causes and prevention of spoilage of home-canned vegetables in Arkansas, 5/1/34, H. Reynolds (Purnell).

Fresh and canned tomato juice as a means of therapy for ascorbic acid sub-nutrition in rural school children, 4/14/36, H. Reynolds (Purnell).

An analysis of a few of the staple cotton materials used extensively for children's clothing, 5/1/34, O. Smenner (Purnell).

Health services and costs in certain rural areas of Arkansas, 4/4/36, I. C. Wilson and [W. H. Metzler, Rural Sociology] (Purnell).

Marketing of products of home industries in Arkansas, 4/23/36, I. C. Wilson and [O. J. Hall, Rural Sociology] (Bankhead-Jones).

The effect of baking temperature and sodium bicarbonate on the stability of vitamin B<sub>1</sub> in rice polish, 10/20/36, Z. C. Battey (State).

### II.

Progress report in Arkansas Sta. Bul. 337 (1936), pp. 9-11, 46-50.

Analysis of some staple cotton materials used extensively for children's clothing, O. Smenner. Ark. Sta. Bul. 350 (1937), pp. 38.

Seasonal influences which affect the quality of canned tomatoes, M. E. Smith. Fruit Prod. Jour. and Amer. Vinegar Indus. 16 (1937), No. 10, pp. 302-304; No. 11, pp. 336-337, 345; No. 12, pp. 364-366, 377.

## CALIFORNIA (Berkeley)

### I.

The effect of pre-digestion on the nutritive value of heated casein, A. Wiens and A. F. Morgan (Departmental).

A study of the rate of clearing of cholesterol from fatty livers of rats and of the lipids in the cleared livers, H. L. Gillum (Departmental).

A study of the changes in physical and chemical constants of fat absorbed by doughnuts, E. L. Frederick (Departmental).

The effect of vitamin B<sub>2</sub> - deficient diets on reproduction in rats, A. F. Morgan and L. M. Morse. (Departmental).

The vitamin content of California grape juices and wines, A. F. Morgan and H. G. Davison. (Departmental).

The comparative absorption of plant and animal sterols by the guinea pig, R. Okey (Departmental).

The production of cataract in rats fed lactose and vitamin B<sub>2</sub> - low diets, B. B. Cook (Departmental).

The effect of lactose on calcium metabolism of rats, C. A. Handley (Departmental).

The rate of deterioration of vitamin C of fruit juices under refrigeration, H. V. Schulze and A. F. Morgan (Departmental).

Physical properties of soybean proteins and their utilization in food preparation, B. M. Watts (Departmental).

CALIFORNIA (Berkeley)

II.

A comparison of the hypervitaminoses induced by irradiated ergosterol and fish liver oil concentrates, A. F. Morgan, L. Kimmel, and N. C. Hawkins. Jour. Biol. Chem., Proc. XXI, 120, 121; 120 (1937), pp. 85-102.

The role of nutrition in tuberculosis control, A. F. Morgan. Med. Woman's Jour., 44 (1937), pp. 132-135.

Vitamin B2 deficiencies as influenced by dietary carbohydrate, A. F. Morgan, B. B. Cook, and H. G. Davison. Jour. Nutr., 13 (1937), suppl. pp. 12, 13.

A note on the nutritive value of "glaxo" and "light white" caseins, A. F. Morgan and E. O. Greaves. Biochem. Jour., 31 (1937), pp. 1553-1556.

Whipping ability of soybean proteins, E. M. Watts, Indus. and Engin. Chem. 29 (1937), p. 1009.

CALIFORNIA (Davis)

I.

The mineral and vitamin C content of nutrient culture vegetables as compared to pure strain vegetables of the same variety, M. Maxwell and J. T. Manchesian. (State)

Additional studies on the effect of certain fish meals and fish oils in the ration on the flavor of the turkey, L. C. Struve [in cooperation with Poultry Husbandry Division] (State).

The adaptability of the Baer fiber sorter for determining the mean fiber length of carded wools, D. B. Rubel [in coop. with J. F. Wilson, Animal Husbandry] (State).

II.

The use of honey as the sweetening ingredient in cakes, H. Morgan. Jour. Home Econ. 29 (1937), pp. 45-48.

COLORADO

I.

The baking of flour mixtures at high altitudes.--II, Physicochemical factors. Revised 8/15/32, M.A. Barmore (Purnell and State).

A study of factors affecting the culinary quality of potatoes, 11/5/34, M. A. Barmore (Purnell).

The relation of readily soluble soil minerals to the composition and quality of Colorado potatoes, 4/28/34, [J. W. Tobiska, Chemistry], M. A. Barmore, and [A. M. Binkley, Horticulture] (Adams).



## COLORADO

### II.

Progress report in Colorado Sta. Rpt. 1936, pp. 29, 30.

Recent developments in the chemistry of storage and preparation of foods, M. A. Barmore. Food Res., 1 (1936), pp. 383-398.

Potato mealiness and changes in softness on cooking, M. A. Barmore. Food Res., 2 (1937), pp. 377-383.

## CONNECTICUT (Storrs)

### II.

The physical equipment of homes in relation to their residential holding power, J. H. Hypes. Jour. Home Econ., 29 (1937), pp. 397-404.

Basal metabolism of Connecticut State college students, E. C. Rogers. Abs. in Jour. Home Econ., 29 (1937), p. 571.

## FLORIDA

### I.

A study of the pathologic changes in tissues and organs of animals affected by deficiency diseases or by toxic substances, 10/9/33, C. F. Ahmann (Purnell).

An investigation of human dietary deficiency in Alachua County, Florida, with special reference to nutritional anemia in relation to the composition of home-grown foods, 4/16/34, O. D. Abbott and C. F. Ahmann (Purnell).

The chemical composition and nutritive value of several Florida honeys, 9/28/36, C. F. Ahmann, O. D. Abbott and [R. E. Foster] (Purnell).

A study of the jelling properties of several varieties of Florida grapes, 9/28/36, O. D. Abbott (Purnell).

A standardization of home canned tomatoes and tomato juice, 9/28/36, O. D. Abbott and [M. Cobb, Extension] (Purnell).

### II.

Progress report in Florida Sta. Rpt. 1936, pp. 62, 63, 70-72, 79, 80.

Citrus fruits in nutrition, O. D. Abbott. Fla. State Hort. Soc. Proc. 48 (1935), pp. 61-64.

Studies of nutritional anemia of rural school children in certain areas of Florida, O. D. Abbott, O. C. Bryan, and W. M. Neal. Assoc. South. Agr. Workers Proc. 37-38 (1936-1937): 257-258.

Effects of diets low in vitamin A on the blood picture of adults, C. F. Ahmann. Assoc. South. Agr. Workers Proc. 37-38 (1936-1937): 254.

Investigation of the vitamin C contents of Florida fruits and vegetables. 1. Citrus, O. D. Abbott and R. B. French. Abs. in Jour. Home Econ., 29 (1937), pp. 568.

## GEORGIA

### I.

Dark adaptation in school children, 4/5/37, L. Ascham (Purnell).

Available iron and available calcium in pasture plants, 7/30/37 - revised 6/15/37, L. Ascham, M. Speirs, D. Maddox, [O. E. Sell, Agronomy and K. T. Holley, Chemistry] (Purnell).

Utilization of fruits and vegetables and their by-products, 6/12/25 - revised 7/13/37, [H. P. Stuckey, H. L. Cochran, J. E. Bailey, M. M. Murphy, and F. F. Cowart, Horticulture; K. T. Holley, W. L. Brown, and T. A. Pickett, Chemistry] and L. Ascham (Purnell).

The ascorbic acid content of southern grown fruits and vegetables, 9/4/35, L. Ascham.

### II.

The vitamin C content of Puerto Rico sweet potato, C. L. Newton and G. C. Lowry. Jour. Home Econ. 29 (1937), pp. 114-117.

Peanut meal: Food value and uses, L. Ascham. Georgia Sta. Bul. 195 (1936), pp. 18.

## HAWAII

### I.

Vitamin determination of Hawaiian foods and feeds, 5/31/29 - Revised 8/30/33. Vitamins A, B, C, and G of foods grown in Hawaii, including chemical determinations of vitamin C; organic nutrients and Ca, P, and Fe content of various foods grown in Hawaii, C. D. Miller and M. Potgieter (Hatch).

The composition, cost and adequacy of the diets of various economic and racial groups in Hawaii, with particular reference to those of growing children, 7/1/37, M. Potgieter and L. Louis (Purnell).

Chemical and biological studies of the opihi (Helcioniscus exeratus and H. argentatus), 5-26-31, C. D. Miller (Adams).

Anemia studies: The relation of blood constituents and blood-forming organs in nutritional anemia, 6/20/35, [C. J. Hamre, Zoology] and C. D. Miller (Adams and Territorial).

[Iodine content of Hawaiian foods, including fruits, vegetables, and marine foods, 6/20/35, E. M. Bilger] (Hatch).

Nutritional investigation of taro, 11/27/35, M. Potgieter and C. D. Miller (Tax Fund and Territorial).

### II.

Basal metabolism of normal young men and women of various races in Hawaii and basal metabolism of Samoan men, C. D. Miller and F. G. Benedict. Hawaii Univ. Research Pubs. No. 15 (1937), pp. 3-59.

The nutritive value of papaya, C. D. Miller and R. C. Robbins. Biochem. Jour. 31 (1937), pp. 1-11.

The adsorption of vitamin B by plant tissue (by *Solanum melongena* Linn. and *Raphanus sativus* var. *longipinnatus* Bailey) when pickled with salt and rice bran, C. D. Miller. Jour. Nutr. 13 (1937), pp. 687-694.

The influence of splenectomy on recovery of nutritional anemia rats, C. J. Hamre and C. D. Miller. Bishop Museum Spec. Pub. 50, (1937), pp. 13.

## IDAHO

### I.

The vitamin E content of pea germ meal, 1/24/36, [A. O. Shaw and D. L. Fournier, Dairy Husbandry] and E. Woods (Purnell).

The vitamin G content of the Idaho Russet Burbank potato, 3/1/32, E. Woods (Purnell).

The vitamin A content of pasture plants under pasture conditions, 12/6/32, reopened 1935-36, [Dairy Husbandry], E. Woods and D. L. Theophilus (Purnell).

The biological value of the protein of field peas and the effect of heat treatment on pea protein, 4/8/37, [W. M. Beeson, Animal Husbandry], E. Woods and [D. W. Bolin, Agr. Chem.] (Purnell).

### II.

Progress report in Idaho Sta. Bul. 221 (1937), pp. 33, 34.

## ILLINOIS

### I.

The nutritive value of highly pigmented corns, 10/27/33, J. Outhouse and E. Kempster (Purnell).

The factors that influence bone calcification, 2/2/32, J. Outhouse and E. Kempster (Purnell).

Mineral requirements of human subjects and the utilization of minerals of foods, 9/1/36, J. Outhouse, G. Kinsman, and E. Kempster (Purnell).

A study of Illinois wheat flours and their behavior in baking, 1/3/27, S. Woodruff and E. Chambers (Purnell).

Characteristics of starches of wheats and of other sources, 7/8/31, S. Woodruff and M. MacMasters (Purnell).

Soybeans and soybean products as human food, 1/4/35, S. Woodruff and H. Klaas (Purnell and Bankhead-Jones).

Studies in the utilization of corn as human food, 8/23/33, S. Woodruff and M. MacMasters (Purnell).

Illinois farm home accounts, 4/7/28, R. C. Freeman (Purnell).

Consumption studies in rural families, 2/26/36, R. C. Freeman (Bankhead-Jones).

Study of the use of income of farmers, 7/9/36, [H. C. M. Case and D. E. Lindstrom, Agr. Economics] and L. Bane (Bankhead-Jones).

### II.

Progress report in Illinois Sta. Rpt. 1935-1936, pp. 285-306.

The effects on corn and wheat starch gels produced by pretreating the starches with freezing or with chemical reagents, S. Woodruff and M. M. Macmasters. Illinois State Acad. Sci. Trans. 29 (1936), pp. 107-109.



## INDIANA

### I.

Refrigeration for the farm household and farm produce, 7/9/35, G. Redfield (Purnell and Supplemental).

A study of small electric mixers and beaters for household use, 4/8/37, G. Redfield (Purnell).

A study of the use of the oven, the waterless cooker, the water-bath, and the pressure cooker for processing fruits and vegetables in home canning, R. Jordan (State).

A study of hydrogenated lard (produced under known conditions) as a culinary fat, R. Jordan (State).

### II.

Progress report in Indiana Sta. Rpt. 1936, pp. 48, 49.

A study of ovens used for domestic cooking purposes, G. M. Redfield. Indiana Sta. Bul. 416 (1936), pp. 20.

A study of efficient kitchen arrangement, G. M. Redfield. Indiana Sta. Bul. 418 (1937), pp. 29.

Selection, operation and care of electric household equipment, G. M. Redfield. Ind. Ext. Bul. 215 (1937), pp. 12.

Jellies, jams, preserves, R. Jordan. Purdue Ext. Bul. 146. Revised (1937), pp. 12.

Observations on the dark adaptation of the eye and vitamin A storage in young adults, C. Schuck and W. Miller. Abs. in Jour. Home Econ. 29 (1937), pp. 569, 570.

## IOWA

### I.

A study of the conditions influencing the production of uniform experimental animals in the stock colony, 10/24/31, P. M. Nelson, P. P. Swanson, W. Armstrong, and M. Greenwood (Purnell).

The nature of the dietary deficiency causing progressive retardation of growth in successive generations of rats, 8/8/36, P. P. Swanson, P. M. Nelson, and M. Gunson (Purnell and State).

The biological value of autoclaved pork muscle, 8/8/36, P. P. Swanson, P. M. Nelson, M. Gunson, and W. Armstrong (Purnell and State).

Dietary factors in the production and cure of toxemic pregnancies induced by the feeding of certain pork diets, 8/8/36, P. P. Swanson, P. M. Nelson, M. Gunson, W. Armstrong, and M. D. Edwards, with [E. Smith, Zoology, and H. D. Bergmann, Veterinary Medicine, advisers] (Purnell and State).

The lactagogue factor in liver and beef muscle, 8/8/36, P. P. Swanson, P. M. Nelson, M. Edwards, and M. Gunson (Purnell and State).

The nutritional status of college women as related to their dietary habits: anthropometric measurements, the formed elements of the blood, basal metabolism and dietary balances, 8/8/36, P. M. Nelson, P. P. Swanson, M. A. Ohlson, and V. Minnich [J. F. Edwards, S. B. Kalar; and J. G. Grant, Hygiene; E. E. Smith, Physiology; and P. C. Jeans and G. Stearns, Pediatrics, Univ. Iowa]. [Regional Project, North Central States] (Purnell and State).



## IOWA

### I. (cont.)

Testing soybean selections suitable for use as green vegetables for human consumption [C. P. Willsie and C. B. Juday, Agronomy] P. M. Nelson and B. Lowe, with [E. S. Haber, Vegetable Crops, and M. G. Weiss, Farm Crops] (Purnell and State).

The protection from degradation which certain finishes provide wool, R. Edgar and M. Jones (State).

Comparative degradation of fabrics by commercial, institutional and home laundering methods, L. J. Peet and R. Edgar (no financial support).

The comparative degradation of cotton cellulose and regenerated cellulose rayon by five oxidizing bleaches, 8/5/37, R. Edgar and M. Lichte (Purnell and State).

Analysis of price information useful to consumers in purchasing, 8/5/37, M. G. Reid, I. W. Arthur, and G. Tintner (Purnell and State).

### II.

Progress report in Iowa Sta. Rpt. 1936, pp. 77-80, 114, 115, 148-158.

Cooperative research among colleges, M. A. Ohlson, P. M. Nelson, and P. P. Swanson. Jour. Home Econ. 29 (1937), pp. 108-113.

Oxidative degradation of silk, R. L. Johnson, E. C. Walde, and R. Edgar. Iowa State Col. Jour. Sci. 11 (1936), pp. 5-14.

Degradation of five weighted silk fibers by steam, R. L. Johnson and R. Edgar. Iowa State Col. Jour. Sci. 11 (1936), pp. 15-20.

Formaldehyde as a protective agent for wool, F. Barr and R. Edgar. Textile Res., 7 (1937), pp. 175-179.

Starting baked products in cold versus preheated ovens, L. J. Peet and B. Lowe. Iowa Sta. Res. Bul. 213 (1937), pp. 89-124.

Care of meat in the household refrigerator, L. J. Peet. Iowa Sta. Res. Bul. 215 (1937), pp. 157-188.

## KANSAS

### I.

The vitamin content of foods relating to human nutrition.--2, Determination of the vitamin content of foods. Revised 11/25/35.

F. A study of the vitamin A and G content of the colostrum of the dairy cow, M. M. Kramer and B. L. Kunerth.

H. A study of the vitamin A and G content of the milk of dairy cows maintained under conditions practiced in Kansas, M. M. Kramer.

I. A study of bean sprouts as a source of vitamin C, M. M. Kramer and B. L. Kunerth (Purnell).

A study of factors affecting the service qualities of certain textile fabrics. Revised 11/20/35. (See p. 9)

## KANSAS

### I. (cont.)

3. The effect of heat, light and perspiration on the service qualities of weighted and unweighted silk fabrics. B.--The effect of natural and synthetic perspiration on the breaking strength, K. Hess and H. Fletcher (Purnell).

4. A study of service qualities of fabrics with regard to adequate labeling. B.--A study of certain qualities of fabrics that influence their ability to absorb moisture, K. Hess and H. Fletcher (Purnell).

The effect upon the animal body of varying the amount of vitamin in the diet.--1, The effect upon the animal body of varying the amount of vitamin C in the diet, with special reference to reproduction and the development of the embryo, 4/6/32, M. Kramer and [M. T. Harman, Zoology] (Purnell).

Studies of factors affecting the expenditures for family living among Kansas farm families, 7/12/35, M. A. Gunselman and [W. E. Grimes, Agr. Economics] (Purnell).

The nutritional status of college women as related to their dietary habits, 9/9/36, [Regional Project, North Central States] (Purnell).

1. A study of the anthropometric measurements of college women in Kansas, M. S. Pittman, B. L. Kunerth, and D. Cederquist.

2. A study of the basal metabolism of women of college age in Kansas, M. S. Pittman, B. L. Kunerth, and D. Cederquist.

3. A study of the blood picture of college women in Kansas, M. S. Pittman, B. L. Kunerth, and D. Cederquist.

4. A study of the intake and utilization of the food of a selected group of Kansas college women, M. S. Pittman and B. L. Kunerth.

5. A survey study of the dietary habits of Kansas college women, M. S. Pittman and B. L. Kunerth.

### II.

Progress reports in Kansas Sta. Rpt., 1935-36, pp. 115-120.

Vitamin A activity of butters determined by various methods, M. E. Leuschen, B. L. Kunerth, and M. M. Kramer. Jour. Nutr. 14 (1937), pp. 247-259.

Vitamin A and carotene determinations on a sample of commercial butter, B. L. Kunerth and E. Leuschen. Trans. Kansas Acad. Sci. 39 (1936), pp. 191-195.

Effect of pan on temperature of baking and tenderness of angel food cake, S. J. Reed, E. V. Floyd, and M. S. Pittman. Jour. Home Econ. 29 (1937), pp. 188-192.

Certain factors which affect the palatability and cost of roast beef served in institutions, G. E. Vail and L. O'Neill. Jour. Amer. Dietet. Assoc. 13 (1937), pp. 34-39.

Endometrial hyperplasia as observed in experimental guinea pigs, O. Saffry, M. M. Kramer, and M. T. Harman. Abs. in Jour. Home Econ. 29 (1937), p. 569.

The diets of ten low-income families, A. Spoelstra and M. S. Pittman. Abs. in Jour. Home Econ. 29 (1937), pp. 570, 571.

Analysis of bleached and unbleached muslin sheetings, E. B. Nelson. Abs. in Jour. Home Econ. 29 (1937), pp. 572.

Wearing qualities of certain ready-made garments, D. E. Ekstrom. Abs. in Jour. Home Econ. 29 (1937), pp. 573.



## KENTUCKY

### I.

The relationship of certain constituents of egg yolks and hemoglobin regeneration in humans, 6/16/36, S. E. Erikson and R. Boyden and [W. M. Insko and J. H. Martin, Poultry Husbandry] (Purnell).

An investigation of the metabolism of obesity, (10/20/25), S. E. Erikson and R. Boyden (Purnell).

## MAINE

### I.

The economic utilization of electricity in food preparation in Maine rural homes, revised 10/20/36, (3) The effect of the method of heat application and accompanying oven conditions on flavor and texture of baked foods, M. M. Monroe and P. S. Greene (Purnell, Hatch, and State).

The factors affecting the cooking quality of potatoes, revised 8/29/32, (2) The relation of internal composition and physical structure of the potato to mealiness, M. D. Sweetman and P. S. Greene (Purnell, Hatch, and State).

A study of the financing by Maine families of higher education of their children in Maine institutions, 7/13/33, P. S. Greene (Purnell, Hatch, and State).

Food habits and nutritional status of children in selected communities in Maine, 7/7/34, M. D. Sweetman, M. M. Clayton, and P. S. Greene (Purnell, Hatch, and State).

The effect of an improved diet upon the health and nutritive condition of grade school children in Mars Hill, Maine, 8/13/35, M. M. Clayton, M. D. Sweetman, and P. S. Greene (Purnell, Hatch, and State).

The antiscorbutic value of home canned pickles of various types used in Maine, 7/1/35, M. M. Clayton (State).

The economical management of kerosene cook stoves to secure palatability of product in Maine farm households, M. M. Monroe (State).

The relation of the dietary habits and food resources of Maine people to their state of nutrition with respect to vitamin C, 9/21/37, M. M. Clayton, P. S. Greene, and M. D. Sweetman (Regional project, Northeastern States) (Purnell).

### II.

Progress report in Maine Sta. Bul. 384 (1936), pp. 397-401, 406, 407.

Evaluation of certain factors affecting the cost of using utensils on electric heating units, M. M. Monroe. Maine Sta. Bul. 386 (1937), pp. 53-155.

Potatoes from the consumer's standpoint, M. D. Sweetman and L. M. Dakin. Maine Agr. Coll. Ext. Bul. 230 (1936), pp. 20.

## MASSACHUSETTS

### I.

Methods and criteria for detecting nutritional disturbances.--A study of the cause and control of nutritional cataract, 3/6/35, H. S. Mitchell and O. A. Merriam (Purnell).

A study of the nutrition of college women with respect to vitamin C requirements, 10/17/36, H. S. Mitchell and O. A. Merriam (Regional project, Northeastern States) (Purnell and State).

[Fundamental nutritive properties of apples and apple products, 3/14/34, C. R. Fellers and A. S. Levine, Hort. Manufactures] (Purnell).

Nutritive value of cranberries, 7/6/26, C. R. Fellers and A. S. Levine (Purnell).

[The iron, copper, manganese, and iodine content of vegetables used as human food, 8/5/33, W. S. Ritchie et al., Chemistry] (Purnell, Hatch, and State).

[Absorption by food plants of chemical elements of importance in human physiology and nutrition, 4/3/34, N. S. Eisenmenger, Agronomy, and W. S. Ritchie, Chemistry] (Purnell, Hatch, and State).

[Nutritive value of fishery products as human and animal food, 9/30/35, W. S. Ritchie, Chemistry, and C. R. Fellers, Hort. Manufactures] (Purnell, Hatch, and State).

A study of the source and amount of iodine effective in the prevention of the pathology produced in rabbits by feeding cholesterol, H. S. Mitchell and M. Goldfaden (State).

[Chemical changes in the cooking of vegetables, 5/27/36, M. E. Freeman, Chemistry] (Adams).

[The effect of storage and processing on the carbohydrates of some varieties of edible onions, 3/5/37, E. Bennett, Chemistry] (Adams).

[Progressive changes in frozen meat during storage, 7/8/37, W. S. Ritchie, Chemistry] (Purnell).

[Investigations related to the activation of food products in general and especially as these are related to vitamin-D milk, C. R. Fellers, W. B. Esselen, Jr., and C. F. Dunker, Hort. Manufactures]

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- B. The relation of the carotene and xanthophyll content of the diets to the growth of young chicks, B. Bisbey, [H. L. Kempster (Poultry) and A. Weis (Chemistry)];
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A comparative study of glass curtain fabrics, 8/5/37, (Leader to be appointed) (Purnell).

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OREGON

I.

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## RHODE ISLAND

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A study of kinds and maintenance of floor finishes best suited for household use, 8/31/35, B. M. Kuschke (Purnell).

The nutritional status of college women as related to their dietary habits, with particular reference to vitamin C, 10/29/36, E. Batchelder (Regional project-Northeastern States) (Purnell).

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The use of textile fabrics for household needs by farm families in eight counties of South Carolina, 10/1/35, M. E. Frayser (State).

The production and consumption of dairy products by South Carolina farm families, 3/1/36, M. E. Frayser (State).

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## SOUTH DAKOTA

### I.

The influence of various kinds of wool on some of the physical properties of flannel, 1/30/34, B. Bailey and E. Pierson (Purnell).

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[Sweetpotato sirup--an investigation of possibilities of home production, 7/30/30, G. A. Shuey, Chemistry ] (Purnell).

[Factors affecting the quality of strawberry juice, 7/25/34, G. A. Shuey, Chemistry ] (Purnell).

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Home production of food supplies, 1/13/36, [C. A. Mooers, Agronomy; B. D. Drain, Horticulture; M. Jacob, Animal Husbandry] and F. L. MacLeod (Bankhead-Jones).

Investigation of buying practices of farm families, limited to a few articles, E. L. Speer (Departmental and Agricultural Extension Service).

Summary of expenditures of farm families as recorded in home account books, E. L. Speer (Departmental and Agricultural Extension Service).

### II.

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## TEXAS

### I.

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